

SEQUENCE LISTING

<110> DeJong, Jeff L.
 <120> Transcription Factors Related to TFIIA
 <130> 119941-1083
 <140> 09/703,809
 <141> 2000-10-30
 <150> 09/326,529
 <151> 1999-06-04
 <160> 18
 <170> PatentIn version 3.1
 <210> 1
 <211> 1617
 <212> DNA
 <213> Homo sapien

<400> 1
 gctggagggtg ctgtcatggtc ctgctcaac cgggtgccta aactctacag atctgtaatt 60
 gaagatgtaa ttgaaggagt tcggaatcta tttgctgaag aaggtataga ggaacaagtt 120
 ttaaaagaact tgaagcagct ctgggaaacc aaggttttgc agtctaaagc aacagaagac 180
 ttcttcagaa atagcatcca atcacctctg ttactcttc agttgcgcga cagcttgac 240
 caaacattgc aatcgtaac agcatcatta gttattctctg ctggtagaac tottccaagt 300
 ttaccacag cagaactggg cacttcaaac tccagtgcga actttacttt tcttggttat 360
 cccattcatg taccagcagg tgtgacacta cagactgtat ctggtcacct ttataaagtc 420
 aatctaccaa ttatgggtgac agacacttct ggaagagcag gtattcttca gcatccaatt 480
 cgggaattat ttggaattt cgggaattt cgggaattt cgggaattt cgggaattt 540
 cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt 600
 cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt 660
 gatatacttg tatctctctg aaatgagcat aaaatcgtgc ctgaagcttt gttgtgcat 720
 cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt 780
 cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt cgggaattt 840

RECEIVED

JUN 1 9 2002

JUN 1 5 2002

TECH CENTER 1600/2900

RECEIVED

JUN 1 3 2002

TECH CENTER 1600/2900

attcgggtta ctgatgatga tattgggtgaa ataattcaag tagatggaag cggtgataca 1080
 tcttccaatg aagaaatagg aagtacaaga gatgcagatg agaataaatt tctaggggaat 1140
 attgaacgggg gagatctgaa ggtacctgaa gaagaagctg acagtatttc aaatgaggat 1200
 tcagccacaa acagtagtga taatgaagac cctcaagtaa acattgtaga agaggacct 1260
 ttaaattctg gagatgatgt tagtgaacag gatgtgccag acctgtttga caccgataat 1320
 gtaattgtct gtcagtatga taagattcat cgaagcaaga acaaatggaa attctatttg 1380
 aaagatgggtg ttatgtgttt tggagggaga gactatgtat ttgcaaaagc cattgggtgat 1440
 gcagagtggc aaaacctgtg agctcagtae atctattttg tgaacatcag ttggactata 1500
 ttgcataatg tgaattcatt tttattttga atatagtcca gcacagagct gttcaaattt 1560
 ctagtctcat gtatggaatt taataaaatt ataattcaga tgcagatata attacac 1617

<210> 2
 <211> 473
 <212> PRT
 <213> Homo sapien

<400> 2

Met Ala Cys Leu Asn Pro Val Pro Lys Leu Tyr Arg Ser Val Ile Glu
1 5 10 15

Asp Val Ile Glu Gly Val Arg Asn Leu Phe Ala Glu Glu Gly Ile Glu
20 25 30

Glu Gln Val Leu Lys Asp Leu Lys Gln Leu Trp Glu Thr Lys Val Leu
35 40 45

Gln Ser Lys Ala Thr Gln Asp Phe Phe Asn Asn Ser Ile Gln Ser Pro
50 55 60

Leu Phe Thr Leu Gln Leu Pro His Ser Leu His Gln Thr Leu Gln Ser
65 70 75 80

Ser Thr Ala Ser Leu Thr Ile Thr Ala Gly Asn Thr Leu Thr Ser Ile
85 90 95

Pro Gly Tyr Pro Ile His Val Pro Ala Gly Val Thr Leu Gln Thr Val
115 120 125

Ser Gly His Leu Tyr Lys Val Asn Val Pro Ile Met Val Thr Glu Thr
130 135 140

Ser Gly Arg Ala Gly Ile Leu Gln His Pro Ile Gln Gln Val Phe Gln
145 150 155 160

Gln Leu Gly Gln Pro Ser Val Ile Gln Thr Ser Val Pro Gln Leu Asn
165 170 175

Pro Trp Ser Leu Gln Ala Thr Thr Glu Lys Ser Gln Arg Ile Glu Thr
180 185 190

Val Leu Gln Gln Pro Ala Ile Leu Pro Ser Gly Pro Val Asp Arg Lys
195 200 205

His Leu Glu Asn Ala Thr Ser Asp Ile Leu Val Ser Pro Gly Asn Glu
210 215 220

His Lys Ile Val Pro Glu Ala Leu Leu Cys His Gln Glu Ser Ser His
225 230 235 240

Tyr Ile Ser Leu Pro Gly Val Val Phe Ser Pro Gln Val Ser Gln Thr
245 250 255

Asn Ser Asp Val Glu Ser Val Leu Ser Gly Ser Ala Ser Met Ala Gln
260 265 270

Asn Ile His Asp Glu Ser Leu Ser Thr Ser Ile His Gly Ala Leu His
275 280 285

Gln His Val Thr Asp Ile Asn Leu His Ile Leu Lys Asn Ala Met Tyr
290 295 300

Gly Tyr Asp Ser Val Lys His Ile Asn Asn Ile His His Ile Ser Asn
305 310 315 320 325

350

Arg Asp Tyr Val Phe Ala Lys Ala Ile Gly Asp Ala Glu Trp
465 470 475

```
<210> 3
<211> 3824
<212> DNA
<213> Homo sapien
```

[illegible]

ttactgacta ccagacacac atgtttatcc catgaactgt taccagatga ccaactatgt	540
acacatccaa ctcccaaat aggtcttcca gatgaagtta atcctcaaca ggttgnaagc	600
ctaggattcc aagtgatga tctcccccag tttcagtttt ttgagagga ctatgctttt	660
tcaagtccat ttggnaaga tgaagucagt gattcccat tcaactttga ccacacagaa	720
agcaaaaaga tgtttctcgc aagaaacaag gagatgccta ttgacccaaa aagcctaat	780
aagtgttcc acactatat ctgtgagaag cttgaacatc tccagtccgc tgagaaccaa	840
gaactactta gaagtttgc tatgcactgt ctatgtgtgc aagaaaatgc ctcttctttt	900
gtcccccaca cactcttcag gagtcagcca aaatccggat ggtctttcat gctgagaatt	960
cctgagaaga agaatatgat gtcttccggc caatggggac caatttttct gaaagttttg	1020
cctggaggaa ttttgcagat gtattatgaa cagggattag aaaaaccatt taaagagata	1080
cagcttgatc catattgtag gctttctgaa cccaaggttg agaacttcag tgtagcagga	1140
aaaatccaca ctgtgaagat tgaacatgtg tcttacacag aaaaaaggaa ataccattct	1200
aagacagaag tagttcatga aactgacata gagcagatgc tgaagtggg gtcacatcg	1260
taccatgaat tcttgactt tctgactact gtggaggagg agctgatgaa gttgccagct	1320
gtttccaaaac caaaaaagaa ctacgaggag caagaaattt ccttggaat tgtggacaac	1380
ttttggggta aagtcacaaa agaaggaaaa tttgttgaaa gtgtgtgat aactcaaatt	1440
tattgcctct gctttgtgaa tgggaacctg gaatgctttt taactctgaa tgacctgag	1500
ttgcgaagc gagatgaat ctattatgag aaggactcag aaaaaaggg gattgatatt	1560
cttgactacc attttcataa gtgtgtgaat gtacaagaat ttgagcaatc aagaatcatt	1620
aagtttgtac ctctggatgc ctgccggttt gagctgatgc gtttcaagac tttgtataat	1680
ggtttatc tttttttt tttttttt tttttttt tttttttt tttttttt	1740
tttttttt tttttttt tttttttt tttttttt tttttttt tttttttt	1800
tttttttt tttttttt tttttttt tttttttt tttttttt tttttttt	1860
tggacatga acctccagag ccaggaagct ctgaaagctt aaatgaaccc ccaggaatgt	1920
tttttttt tttttttt tttttttt tttttttt tttttttt tttttttt	1980
tttttttt tttttttt tttttttt tttttttt tttttttt tttttttt	2040

<211> 1181
<212> PAT
<213> Homo sapien

400> 4

Met Cys Ser Thr Asn Pro Gly Lys Trp Val Thr Phe Asp Asp Asp Pro
1 5 10 15

Ala Val Gln Ser Ser Gln Lys Ser Lys Asn Phe Pro Leu Glu Asn Gln
20 25 30

Gly Val Cys Arg Pro Asn Gly Leu Lys Leu Asn Pro Pro Gly Leu Arg
35 40 45

Glu Phe Pro Ser Gly Ser Ser Ser Thr Ser Ser Thr Pro Leu Ser Ser
50 55 60

Pro Ile Val Asp Phe Tyr Phe Ser Pro Gly Pro Pro Ser Asn Ser Pro
65 70 75 80

Leu Ser Thr Pro Thr Lys Asp Phe Pro Gly Phe Pro Gly Ile Pro Lys
85 90 95

Ala Gly Thr His Val Leu Tyr Pro Ile Pro Glu Ser Ser Ser Asp Ser
100 105 110

Pro Leu Ala Ile Ser Gly Gly Glu Ser Ser Leu Leu Pro Thr Arg Pro
115 120 125

Thr Cys Leu Ser His Ala Leu Leu Pro Ser Asp His Ser Cys Thr His
130 135 140

Leu Thr Leu Lys Val Gly Leu Leu Arg Ala Val Asn Leu Gln Gln Ala
145 150 155 160

Gln Ser Leu Gly Phe Gln Ser Asp Asp Leu Pro Gln Phe Gln Tyr Phe
165 170 175

Asp Thr Asp Tyr Ala Ile Ser Ser Ile Phe Asn Lys Asp Gln Gly Ser

Ser Arg Asn Lys Glu Met Pro Ile Asp Gln Lys Ser Leu Asn Lys Cys
210 215 220

Ser Leu Asn Tyr Ile Cys Glu Lys Leu Glu His Leu Gln Ser Ala Glu
225 230 235 240

Asn Gln Asp Ser Leu Arg Ser Leu Ser Met His Cys Leu Cys Ala Glu
245 250 255

Glu Asn Ala Ser Ser Phe Val Pro His Thr Leu Phe Arg Ser Gln Pro
260 265 270

Lys Ser Gly Trp Ser Phe Met Leu Arg Ile Pro Glu Lys Lys Asn Met
275 280 285

Met Ser Ser Arg Gln Trp Gly Pro Ile Phe Leu Lys Val Leu Pro Gly
290 295 300

Gly Ile Leu Gln Met Tyr Tyr Glu Gln Gly Leu Glu Lys Pro Phe Lys
305 310 315 320

Glu Ile Gln Leu Asp Pro Tyr Cys Arg Leu Ser Glu Pro Lys Val Glu
325 330 335

Asn Phe Ser Val Ala Gly Lys Ile His Thr Val Lys Ile Glu His Val
340 345 350

Ser Tyr Thr Glu Lys Arg Lys His Ser Lys Thr Glu Val Val His Glu
355 360 365

His Asp Ile His Glu Met Leu Lys Leu Lys Ser Thr Ser Lys His Asp
370 375 380

Phe Leu Asp Ile Leu Thr Thr Val Glu Glu Glu Leu Met Lys Leu Pro
385 390 395 400

Ala Val Ser Lys His Lys Lys Asn Tyr His His Glu His Ile Ser Leu
405 410 415 420

Val Glu Ser Ala Val Ile Thr Gln Ile Tyr Cys Leu Cys Phe Val Asn
435 440 445

Gly Asn Leu Glu Cys Phe Leu Thr Leu Asn Asp Leu Glu Leu Ile Lys
450 455 460

Arg Asp Glu Ser Tyr Tyr Glu Lys Asp Ser Glu Lys Lys Gly Ile Asp
465 470 475 480

Ile Leu Asp Tyr His Phe His Lys Cys Val Asn Val Gln Glu Phe Glu
485 490 495

Gln Ser Arg Ile Ile Lys Phe Val Pro Leu Asp Ala Cys Arg Phe Glu
500 505 510

Leu Met Arg Phe Lys Thr Leu Tyr Asn Gly Asp Asn Leu Pro Phe Ser
515 520 525

Leu Lys Ser Val Val Val Val Gln Gly Ala Tyr Val Glu Leu Gln Ala
530 535 540

Phe Val Asn Met Ala Ser Leu Ala Gln Arg Ser Ser Tyr Ala Gly Ser
545 550 555 560

Leu Arg Ser Cys Asp Asn Ile Arg Ile His Phe Pro Val Pro Ser Gln
565 570 575

Trp Ile Lys Ala Leu Trp Thr Met Asn Leu Gln Arg Gln Lys Ser Leu
580 585 590

Lys Ala Lys Met Asn Ala Ala Tyr Leu Gly Ser Leu Gln Gln Leu
595 600 605 610 615 620

Val Ser Val Leu Thr Ile Gln Val Thr Val Lys Ser Ala Lys Tyr Gln
615 620 625 630 635 640

Arg Ala Tyr Gln Ala Val Val Trp Lys Ile Asp Asn Leu Ile Asp Lys
645 650 655 660 665 670

660

665

670

Gln Phe Ser Val Pro Asp Thr Cys Ala Ser Arg Thr Glu Val Arg Ser
675 680 685

Leu Gly Val Glu Ser Asp Val Gln Pro Gln Lys His Val Gln Gln Arg
690 695 700

Ala Cys Tyr Asn Ile Gln Pro Lys Leu Tyr Arg Ser Val Ile Glu Asp
705 710 715 720

Asp Val Ile Glu Gly Val Arg Asn Leu Phe Ala Glu Glu Gly Ile Glu
725 730 735

Gln Val Leu Lys Asp Leu Lys Gln Leu Trp Glu Thr Lys Val Leu Gln
740 745 750

Ser Lys Ala Thr Glu Asp Phe Phe Arg Asn Ser Ile Gln Ser Pro Leu
755 760 765

Phe Thr Leu Gln Leu Pro His Ser Leu His Gln Thr Leu Gln Ser Ser
770 775 780

Thr Ala Ser Leu Val Ile Pro Ala Gly Arg Thr Leu Pro Ser Phe Thr
785 790 795 800

Thr Ala Glu Leu Gly Thr Ser Asn Ser Ser Ala Asn Phe Thr Phe Pro
805 810 815

Gly Tyr Pro Ile His Val Pro Ala Gly Val Thr Leu Gln Thr Val Ser
820 825 830 835

Gly His Leu Tyr Lys Val Asn Val Pro Ile Met Val Thr His Thr Ser
840 845 850 855

Gly Arg Ala Gly Ile Leu Gln His Pro Ile Gln Gln Val Phe Gln Gln
860 865 870 875

Leu Gln Gln Pro Ala Ile Leu Pro Ser Gly Pro Val Asp Arg Lys His
900 905 910

Leu Glu Asn Ala Thr Ser Asp Ile Leu Val Ser Pro Gly Asn Glu His
915 920 925

Lys Ile Val Pro Glu Ala Leu Leu Cys His Gln Glu Ser Ser His Tyr
930 935 940

Ile Ser Leu Pro Gly Val Val Phe Ser Pro Gln Val Ser Gln Thr Asn
945 950 955 960

Ser Asp Val Glu Ser Val Leu Ser Gly Ser Ala Ser Met Ala Gln Asn
965 970 975

Leu His Asp Glu Ser Leu Ser Thr Ser Pro His Gly Ala Leu His Gln
980 985 990

His Val Thr Asp Ile Gln Leu His Ile Leu Lys Asn Arg Met Tyr Gly
995 1000 1005

Cys Asp Ser Val Lys Gln Pro Arg Asn Ile Glu Glu Pro Ser Asn
1010 1015 1020

Ile Pro Val Ser Glu Lys Asp Ser Asn Ser Gln Val Asp Leu Ser
1025 1030 1035

Ile Arg Val Thr Asp Asp Asp Ile Gly Glu Ile Ile Gln Val Asp
1040 1045 1050

Lys Ser Lys Asp Ile Ser Ser Asn Ile His Ile Lys Ser Ile Arg
1055 1060 1065

Asp Ala Asp Glu Asn Glu Phe Leu Gly Asn Ile Asp Gly Gly Asp
1070 1075 1080

Leu Ser Thr Ile Ile His Ile Ala Asn Ser Ile Ser Asn Glu Asn

Val Glu Glu Asp Pro Leu Asn Ser Gly Asp Asp Val Ser Glu Gln
 1118 1120 1125

Asp Val Pro Asp Leu Phe Asp Thr Asp Asn Val Ile Val Cys Gln
 1130 1135 1140

Tyr Asp Lys Ile His Arg Ser Lys Asn Lys Trp Lys Phe Tyr Leu
 1145 1150 1155

Lys Asp Gly Val Met Cys Phe Gly Gly Arg Asp Tyr Val Phe Ala
 1160 1165 1170

Lys Ala Ile Gly Asp Ala Glu Trp
 1175 1180

<110> 5
 <111> 253
 <112> DNA
 <113> Homo sapien

<120>
 <121> CDS
 <122> (1)..(30)
 <123>

<400> 5
 gca ttc cca aga agg aca tcg ttt aac acc taaactcatt taacaaagga 50
 Ala Phe Pro Arg Arg Thr Ser Phe Asn Thr
 1 5 10

tcggagaaga acagggacag tctgggaaga aatcttcttg tgatggcata ttgcttcct 110

atatttcttc tggatcctg ttcgcttggt ttcctgatta aaaacacagt ttatttgctc 170

ttctctctct tctctctctct tctctctctct tctctctctct tctctctctct 230

ttctctctct tctctctctct tctctctctct tctctctctct tctctctctct 290

<114> 1
 <115> 10
 <116> FRT
 <117> Homo sapien

<118>

<210> 10
<211> FR7
<213> Homo sapien

<400> 7

Ala Phe Irc Arg Arg Thr Ser Phe Asn Thr
1 5 10

<210> 8
<211> 18
<212> DNA
<213> Homo sapien

<400> 8
agaaattccc tctgattg 18

<210> 9
<211> 18
<212> DNA
<213> Homo sapien

<400> 9
agtaaccocga atgcttaa 18

<210> 10
<211> 18
<212> DNA
<213> Homo sapien

<400> 10
atgctagctg aaccactg 18

<210> 11
<211> 29
<212> DNA
<213> Homo sapien

<400> 11
ggaattttaa tgaatgattt tttttttt 21

<210> 12
<211> 30
<212> DNA
<213> Homo sapien

<212> DNA
<213> Homo sapien

<400> 13
ggtagtgta tggactgcat caacccgg

27

<210> 14
<211> 54
<212> DNA
<213> Homo sapien

<400> 14
actatcata tggcacacca tcaccatcac catgtacct aactctacag atct

54

<210> 15
<211> 30
<212> DNA
<213> Homo sapien

<400> 15
agtagtggat cattaccact ctgcacacc

30

<210> 16
<211> 24
<212> PRT
<213> Homo sapien

<400> 16

Met Glu Thr His Ile Ser His Ile Ser His Ile Ser His
1 5 10 15

Ile Ser His Ile Ser Val Ala Leu
20

<210> 17
<211> 4
<212> PRT
<213> Homo sapien

<400> 17

Met Ala Cys Leu Asn Pro
1 4

tartgibon ghaattag ap:

113